LISTING OF CLAIMS

Claim 1-41 (canceled)

Claim 42 (previously presented) An expandable stent formed of a cylindrical unitary tube suitable for insertion into a lumen in which the stent may be expanded, comprising:

a plurality of continuous serpentine sections extending circumferentially around the stent;

a plurality of flexible connectors connecting said serpentine sections forming a generally uniformly sized cell structure wherein the length of each of said connectors is longer than the distance between adjacent serpentine sections each of said connectors being elongatable in a bend of the lumen so as to maintain a generally uniformly sized cell structure in the bend after expansion.

Claim 43 (previously presented) The stent according to claim 42 wherein the flexible connectors are staggered between neighboring adjacent serpentine sections along the longitudinal length of the stent.

Claim 44 (previously presented). The stent according to claim 42 wherein the flexible connectors are horizontally aligned between neighboring adjacent serpentine sections along the longitudinal length of the stent.

Claim 45 (previously presented). The stent according to claim 44, wherein the flexible connectors further include straight portions and curved portions, the straight portions being connected to the neighboring adjacent sections.

Claim 46 (previously presented). The stent according to claim 45, wherein the curved portions of the flexible connectors have an open end and a closed end, the open end of the connectors facing the same direction within each continuous serpentine section circumferentially around the stent, and alternate in the opposite direction along the longitudinal axis of the stent.

Claim 47 (previously presented). The stent according to claim 44, wherein the flexible connectors are connected to peaks of neighboring adjacent serpentine sections.

Claim 48 (previously presented). The stent according to claim 47, wherein the flexible connectors are attached to all the peaks of neighboring adjacent serpentine sections.

Claim 49 (previously presented). A flexible connector for connecting loops of adjacent vertical meander patterns of a stent to form a generally uniformly sized cell structure, including: an elongatable member wherein the length of the member is greater than the distance between points of attachment of the member to the adjacent vertical meander patterns, said connector being elongatable so as to maintain a generally uniformly sized cell structure in a bend after expansion.

Claim 50 (previously presented). The flexible connector of claim 49 wherein a plurality the connectors are staggered between neighboring adjacent vertical meander patterns along the longitudinal length of the stent.

Claim 51 (previously presented). The flexible connector of claim 49 wherein a plurality the connectors are horizontally aligned between neighboring adjacent vertical meander patterns along the longitudinal length of the stent.

Claim 52 (previously presented). A stent formed of a unitary tube having a patterned shape for insertion into a lumen in which it may be expanded, comprising:

a. even first meander patterns having axes extending in a first direction;

b. odd first meander patterns also having axes extending in said first direction, wherein said odd first meander patterns are 180° out of phase with said even first meander patterns and occur between every two even first meander patterns;

c. second meander patterns having axes extending in a second direction, different than said first direction, wherein said second meander patterns intersect with said even and odd first meander patterns to form a generally uniformly sized structure;

d. wherein said first and said second meander patterns comprise loops;

e. wherein at least one loop of each of said second meander patterns is between each odd and even first meander pattern;

f. said loops of said second meander patterns containing at least a portion having a smaller width, so as to allow the stent to maintain a generally uniformly sized structure in a curved lumen.

Claim 53 (previously presented). The stent according to claim 52 wherein said second meander patterns are connected to said even and odd first meander patterns so as to leave loops of the first meander patterns between adjacent second meander patterns.

Claim 54 (previously presented). The stent according to claim 52, wherein said second meander patterns have straight and curved portions.

Claim 55 (previously presented). The stent according to claim 54, wherein each curved portion of said second meander patterns further includes an open end and a closed end, wherein the open end alternates in direction along the longitudinal axis of the stent.

Claim 56 (previously presented). A stent formed of a unitary tube having a patterned shape for insertion into a lumen in which it may be expanded, comprising:

a. even first meander patterns having axes extending in a first direction;

b. odd first meander patterns also having axes extending in said first direction, wherein said odd first meander patterns are 180° out of phase with said even first meander patterns and occur between every two even first meander patterns;

c. second meander patterns having axes extending in a second direction, different than said first direction, wherein said second meander patterns intersect with said even and odd first meander patterns to form a generally uniformly sized structure;

d. wherein said first and said second meander patterns comprise loops;

e. wherein at least one loop of each of said second meander patterns is between each odd and even first meander pattern;

f. wherein at least some of said loops of said second meander patterns are more flexible than the loops of said first meander patterns, so that a distance between first meander patterns is maintained upon expansion.

Claim 57 (new) An expandable stent for supporting a vessel, wherein in the expanded and deployed state, the stent consists of:

a. first meander patterns having loops, the first meander patterns being longitudinally spaced from each other and having axes extending in a first direction; and

b. second meander patterns having loops, the second meander patterns having axes extending in a second direction, different than the first direction,

c. wherein the first and second meander patterns are interconnected to form a tubular structure;

d. wherein the first meander patterns are connected to the second meander patterns so as to leave at least one loop of each of the second meander patterns in the space between each pair of adjacent first meander patterns;

e. wherein the second meander patterns are connected to the first meander patterns so as to leave no more than two loops of each of the first meander patterns between each pair of adjacent second meander patterns; and

f. wherein said first and second meander patterns are adapted to cooperate so that, when the expanded stent is in a curved vessel, on the outside of the curve, a circumferential compression and horizontal expansion of the loops in said second meander pattern substantially compensates for a horizontal compression and circumferential expansion of the loops in said first meander pattern and on the inside of the curve, vice versa.

Claim 58 (new) A stent according to claim 57, wherein on the outside of the curve, the loops in said second meander pattern are more open and the loops in the first meander pattern more closed, and on the inside of the curve, the loops in said second meander pattern are more closed and the loops in the first meander pattern more open.

Claim 59 (new) A stent according to claim 57 wherein the compensation maintains a density of stent element area which is more constant on the inside and on the outside of the curve than it would without the compensation.

Claim 60 (new) A stent according to claim 57 wherein the compensation maintains a stent area which is more constant on the inside and on the outside of the curve than it would without the compensation.

Claim 61 (new) A stent according to claim 59 wherein said stent is coated with a medicine and said more constant density of stent elements results in a more even dose being applied to the inside wall of the lumen, lowering the probability that a toxic dose is supplied at one area while a less than effective dose is supplied to another area.

Claim 62 (new) A stent according to claim 60 wherein said stent is coated with a medicine and said more constant density of stent elements results in a more even dose being applied to the inside wall of the lumen, lowering the probability that a toxic dose is supplied at one area while a less than effective dose is supplied to another area.

Claim 63 (new) The stent according to claim 57, wherein the shape of the loops provides radial strength to the stent to enable the stent to maintain a blood vessel at a desired inner diameter.

Claim 64 (new) The stent according to claim 57, wherein the stent defines a plurality of enclosed spaces, with each longitudinal end of the enclosed space being formed by loops of the first meander pattern.

Claim 65 (new) The stent according to claim 64 wherein the enclosed spaces are substantially the same size.

Claim 66 (new) A stent formed of a tube having a patterned shape comprising:

a. even first meander patterns having axes extending in a first direction;

b. odd first meander patterns having axes extending in said first direction, wherein the odd first meander patterns are 180° out of phase with the even first meander patterns ,the even first meander patterns and the odd first meander patterns alternating with and spaced from each other;

c. second meander patterns having axes extending in a second direction different from the first direction horizontally, the second meander patterns intertwined being interconnected with the even and odd first meander patterns to form a generally uniform distributed structure;

d. wherein the first and second meander patterns have loops,

e. wherein the even and odd first meander patterns are interconnected to leave a portion of the second meander patterns in the space between adjacent even and odd first meander patterns,

f. wherein the portions of the second meander patterns between adjacent even and odd first meander patterns are adapted to lengthen and to compensate for the tendency of the loops of the first meander patterns to foreshorten when the stent is expanded,

g. wherein the first and second meander patterns are interconnected to leave only two loops of the first meander patterns between each pair of second meander patterns, and

h. wherein the portion of the second meander pattern between adjacent even and odd first meander patterns, and loops of the first meander pattern, are adapted to cooperate so that, when the expanded stent is in a curved vessel, on the outside of the curve, a horizontal expansion of the loops in said second meander pattern substantially compensates for a horizontal compression of the loops in said first meander pattern and on the inside of the curve, vice versa.

Claim 67 (new) A stent according to claim 66, wherein on the outside of the curve, the portion of the second meander pattern between adjacent even and odd first meander patterns includes at least one loop and, on the outside of the curve, the loops in said second meander pattern become more open and the loops in the first meander pattern more closed, and on the inside of the curve, the loops in said second meander pattern become more closed and the loops in the first meander pattern more open.

Claim 68 (new) A stent according to claim 66 wherein the compensation maintains a density of stent element area which is more constant on the inside and on the outside of the curve than it would without the compensation.

Claim 69 (new) A stent according to claim 66 wherein the compensation maintains a stent area which is more constant on the inside and on the outside of the curve than it would without the compensation.

Claim 70 (new) A stent according to claim 68 wherein said stent is coated with a medicine and said more constant density of stent elements results in a more even dose being applied to the inside wall of the lumen, lowering the probability that a toxic dose is supplied at one area while a less than effective dose is supplied to another area.

Claim 71 (new) A stent according to claim 69 wherein said stent is coated with a medicine and said more constant density of stent elements results in a more even dose being applied to the inside wall of the lumen, lowering the probability that a toxic dose is supplied at one area while a less than effective dose is supplied to another area.

Claim 72 (new) The stent according to claim 66, wherein changes in the shape of the loops provide radial strength to the stent upon expansion to enable the stent to maintain a blood vessel at a desired inner diameter.